

REMARKS

Claims 1-27 are currently pending in this application. Claims 1, 2, and 15 have been amended to more particularly point out Applicant's invention. No new matter has been added to this application.

Rejection of Claim 1 under 35 U.S.C. § 102 (b)

The Examiner has rejected claim 1 under 35 U.S.C. § 102 (b) as being anticipated by U.S. Patent No. 4, 674, 046 (Ozeki). The Examiner contends that Ozeki discloses Applicants' invention as claimed. Applicants respectfully traverse the rejection.

The present invention is directed to a computer assisted diagnosis system and method for assisting diagnosis of three-dimensional digital image data. Three-dimensional objects within the three-dimensional image data are identified. For a given three-dimensional object, a local spinning plane for the given object is determined. The local spinning plane is centered at a centroid and a local spinning axis of the given object. The local spinning plane is rotated at least a portion of 360 degrees. A view of the given object at predefined increments of rotation is created so as to result in a plurality of views of the given object that are displayed as a cine loop.

Ozeki discloses a method for obtaining three dimensional tomographic images by interpolation of a plurality of projection slices. An orientation angle of the image can be changed by manually inputting coordinate information. A slice position image representing the designated position and angle of the slice is displayed three-dimensionally in accordance with the coordinate information.

Applicants have amended claim 1 to recite that the plurality of views of the object are displayed as a cine loop. Applicants respectfully submit that Ozeki teaches using individual angles that are manually selected by the user and does not teach or disclose presenting the plurality of views as a cine loop. As such, Applicants submit that Ozeki does not teach or disclose Applicants' invention as

claimed. Applicants request that the rejection of claim 1 under 35 U.S.C. § 102 (b) be withdrawn.

Rejection of Claims 2-27 under 35 U.S.C. § 103 (a)

The Examiner has rejected claims 2-27 under 35 U.S.C. § 103 (a) as being unpatentable over Ozeki in view of U.S. Patent No. 5,838,815 (Gur). The Examiner correctly notes that Ozeki does not teach or disclose receiving indicia identifying at least one region of interest in a digital medical image or identifying three dimensional objects with in the least region of interest. The Examiner contends that Gur teaches obtaining a mammogram image and identifying suspicious masses in the breast region. The Examiner argues that it would be obvious to a person of ordinary skill in the art to apply Ozeki's system to perform image processing on the objects disclosed in Gur by presenting the object in different viewing angles to the physician to determine if the object is abnormal. Applicants respectfully traverse the rejection.

As indicated above, Ozeki does not teach or disclose displaying the plurality of views as a cine loop as recited in amended independent claims 2 and 15. Gur discloses a method of detecting an abnormal region in living tissue as depicted in a digital radiograph. In the Gur method, a suspected abnormal region is identified and multiple topographic layers of the suspected abnormal region are extracted from the digital radiograph. Features of the region are determined in each of the layers and an inter-layer multivariate criterion is applied to the features to determine if the suspected abnormal region in fact is an abnormal region. As indicated in Gur, each layer is examined individually to determine its features and is analyzed multiple times. However, no teaching or disclosure is made of displaying the layers in a cine loop.

Applicants respectfully submit that Gur, like Ozeki, does not teach or disclose displaying the plurality of views (e.g., layers) as a cine loop. Furthermore, the combination of Ozeki and Gur do not each Applicants' invention.

Appl. No. 09/606,564
Amdt. dated November 21, 2003
Reply to Office Action of September 11, 2003

Neither Gur nor Ozeki, whether taken alone or in combination, teach or disclose displaying a plurality of views as a cine loop as recited in independent claims 2 and 15. Claims 3-14 and 16-27 being dependent upon independent claims 2 and 15 respectively are also not taught or disclosed by the combination of Ozeki and Gur. Applicants request that the rejection of claims 2-27 under 35 U.S.C. § 103 (a) be withdrawn.

Conclusion

Applicant respectfully submits that claims 1-27, as amended are in condition for allowance and request that a timely Notice of Allowance be issued in this case. The Examiner is invited to contact the undersigned should he have any questions in this matter.

Respectfully submitted,



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Date: November 21, 2003
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